

REMARKS/ARGUMENTS

Claims 1, 6-10, 13-14, and 16-17 are pending in the present application. Claims 1 and 13-14 have been amended. Applicants have canceled claims 2-5, 11-12, 15 and 18-25 from further consideration in this application.

Applicants are not conceding that the subject matter encompassed by claims 2-5, 11-12, 15 and 18-25 is not patentable over the art cited by the Examiner. Claims 2-5, 11-12, 15 and 18-25 were canceled in this Amendment solely to facilitate expeditious prosecution of the remaining claims. Applicants respectfully reserve the right to pursue additional claims, including the subject matter encompassed by claims 2-5, 11-12, 15 and 18-25, as presented prior to this Amendment in one or more continuing applications. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 102, Anticipation

The Examiner has rejected claims 1, 2, 7-10, 13, and 14 under 35 U.S.C. § 102 as being anticipated by *Robinson et al.*, (U.S. Patent No. 2004/0128345), hereinafter referred to as “*Robinson*.¹” Applicants have canceled claim 2. Therefore the rejection to claim 2 is moot. The rejection of the remaining claims is respectfully traversed.

The Examiner states:

For claim 1, *Robinson* discloses a method in a data processing system to identify a Web service in a registry using a registry lookup naming and directory provider, the method comprising steps of: detecting a request from a service requester to identify the Web service in the registry; responsive to detecting the request, determining if a first element is present in a registry file; responsive to determining the first element is present in the registry file, locating a second element in the registry file based on the first element in the registry file; locating an endpoint location of the Web service based on the second element in the registry file; retrieving an instance of the Web service based on the endpoint location; and returning the instance of the Web service to the service requester ([0026], disclosure of UDDI registry wherein a client may request a service and a registry performs query and returns result to client and [0042], specific disclosure of web services being offered in system).

For claim 2, *Robinson* discloses the method of claim 1, further comprising in response to determining the first element is absent from the registry file, deferring identification of the Web service to a standard naming and directory provider, wherein deferring identification of the Web service includes passing the request to the standard naming and directory provider, and wherein identification of the Web service by the standard naming and directory provider further comprises: locating an additional configuration file; determining if a service name element is present in the additional configuration file; and responsive to determining the service name element exists is present in the additional configuration file, locating an endpoint location of the Web service based on an address element of the additional configuration file ([0026], disclosure of web services registry forwarding client request to another registry in event query of first registry is unsuccessful).

For claim 7, *Robinson* discloses the method of claim 1, wherein the request includes a parameter representing a name of the Web service ([0026], disclosure of querying for named services). For claim 8, *Robinson* discloses the method of claim 7, wherein determining if a first element is present in the registry file includes determining if the name of the Web service maps to the first element ([0026], disclosure that UDDI database queried against request for named services). For claim 9, *Robinson* discloses the method of claim 1, wherein the first element includes a service-ref-name element ([0026], service-ref-name is analogous to name of service requested). For claim 10, *Robinson* discloses the method of claim 1, wherein the registry file includes one of a UDDI registry file, an electronic business using extensible markup language registry file, a web service inspection language registry file, and a custom registry file implemented using a database ([0026]). For claim 13, *Robinson* discloses the method of claim 2, wherein locating an additional configuration file includes locating a wsdl-file element in a webservicesclient.xml file ([0026], disclosure of web services registry forwarding client request to another registry in event query of first registry is unsuccessful; furthermore, WSDL, as noted above in claim 5 rejection, is common descriptor language for registries). For claim 14, *Robinson* discloses the method of claim 2, wherein determining if a service name element is present in the additional configuration file includes determining if a name of the Web service from the request maps to the service name element ([0026], disclosure that UDDI database queried against request for named services)..

Office Action dated June 10, 2008, pages 2-5.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). In this case, each and every feature of the presently claimed invention is not identically shown in the cited reference, arranged as they are in the claims.

Claim 1, as amended, is as follows:

1. A computer implemented method in a data processing system to identify a Web service in a registry using a registry lookup naming and directory provider, the computer implemented method comprising:
 - detecting a request from a service requester to identify the Web service in the registry;
 - responsive to detecting the request, determining if a first element is present in a registry file;
 - responsive to determining the first element is present in the registry file, locating a second element in the registry file based on the first element in the registry file;
 - locating an endpoint location of the Web service based on the second element in the registry file;

retrieving an instance of the Web service based on the endpoint location; and

returning the instance of the Web service to the service requester;

responsive to determining that the first element is absent from the registry file, deferring identification of the Web service to a standard naming and directory provider and passing the request to the standard naming and directory provider;

locating an additional configuration file;

responsive to determining that the first element is absent from the registry file, determining whether the first element is present in the additional configuration file;

responsive to determining the first element is present in the additional configuration file, locating the endpoint location identified by the first element in the additional configuration file; and

returning the endpoint location to the service requester.

I.A. *Robinson Fails to Disclose Determining a First Element and Locating a Second Element based on the First Element*

Robinson fails to anticipate claim 1 because *Robinson* does not disclose “responsive to detecting the request, determining if a first element is present in a registry file” and “responsive to determining the first element is present in the registry file, locating a second element in the registry file based on the first element in the registry file” as in amended claim 1.

In rejecting claim 1, the Examiner cites to *Robinson* at paragraphs [0026] and [0042], which state:

[0026] In another embodiment, access points 300 each contain UDDI registries 302 as in FIG. 1, but they are communicatively coupled with a central UDDI registry 304 on a local network 306 as in FIG. 2. An access point's 300 UDDI registry 302 may operate to receive registration data from a mobile device, and if the device is seeking services and/or resources, may in a conventional manner indicate devices known to the access point providing the desired services and/or resources. In one embodiment, access points store only local registration data, e.g., advertised services, etc., for mobile devices connected to the access point. In this embodiment, requests for services and/or resources unknown to the access point are forwarded to the central UDDI server 304 for appropriate resolution.

[0042] Thus, for example, with respect to the illustrated embodiments, assuming machine 600 embodies a dynamically updated UDDI Web Service Registry associated with a “hotspot” (i.e. an area or cell of wireless networking coverage) in an airport's wireless network, then remote machine 614 may be a permanent device, such as a server, display device, printers, etc. installed at the airport, and remote machine 616 may be a transient wireless device, such as a laptop computer, handheld device, etc. passing through the airport. It will be appreciated that remote machines 614, 616 may include many or all of the elements discussed for machine 600, and that both the transient and permanent devices may wish to advertise, discover, and provide/use

services and resources of the other. A dynamically updated central registry service can be used to aggregate and match service and/resource producers with consumers. And, although the foregoing discussion has focused on use of access points that coordinate registration and deregistration from a UDDI registry, it should be appreciated that an access point is not required, as the principles disclosed herein may be applied to an ad hoc network (e.g. every device could have its own UDDI server).

The cited portion discloses a UDDI registry may receive registration data from device. *Robinson* also teaches that requests for services unknown to the access point are forward to a central UDDI server. The UDDI server is dynamically updated to coordinate registration and deregistration from a UDDI registry. However, *Robinson* does not teach that when a request for services is received, an element of the request is used to locate a corresponding web service in a registry. Thus, *Robinson* fails to teach the features of “responsive to detecting the request, determining if a first element is present in a registry file” and “responsive to determining the first element is present in the registry file, locating a second element in the registry file based on the first element in the registry file,” as taught in amended claim 1. Therefore, *Robinson* does not anticipate amended claim 1.

I.B. Deferring identification of the web service to a Standard Naming and Directory Provider and Determining the first element in the additional configuration file

Robinson fails to anticipate claim 1 because *Robinson* does not disclose responsive to determining that the first element is absent from the registry file, “deferring identification of the Web service to a standard naming and directory provider, wherein deferring identification of the Web service includes passing the request to the standard naming and directory provider” and ” responsive to determining that the first element is absent from the registry file, determining whether the first element is present in the additional configuration file” as in amended claim 1. In rejecting claim 1, the Examiner cites to *Robinson* at paragraphs [0040] and [0042], reproduced above.

As discussed above, the cited portion discloses a method for registering and deregistering a mobile device. However, *Robinson* does not teach when a parameter of a request is absent from the registry file, passing the request to another provider, which then locates the request in an additional configuration file. Thus, *Robinson* fails to anticipate the features of “deferring identification of the Web service to a standard naming and directory provider, wherein deferring identification of the Web service includes passing the request to the standard naming and directory provider” and ”responsive to determining that the first element is absent from the registry file, determining whether the first element is present in the additional configuration file” as taught in amended claim 1. Accordingly, the rejection of claim 1 under 35 U.S.C. § 102 has been overcome.

I.C. Dependent Claims

Claims 7-10, and 13-14 depend on independent claim 1. Therefore, at least by virtue of their dependence on claim 1, *Robinson* does not anticipate these claims. As shown above, *Robinson* is devoid of disclosure of all the features recited in claim 1. Accordingly, the rejection of claims 2, 7-10, 13, and 14 under 35 U.S.C. § 102 has been overcome.

II. 35 U.S.C. § 103, Obviousness

II.A. *Robinson* in view of Official Notice – Claims 5 and 15

The Examiner has rejected claims 5 and 15 under 35 U.S.C. § 103 as being obvious over *Robinson* in view of *Official Notice*. Applicants have canceled claim 5 and 15. Therefore the rejection of claims 5 and 15 is moot.

II.B. *Robinson* in view of Stelting – Claim 6

The Examiner has rejected claim 6 under 35 U.S.C. § 103 as being obvious over *Robinson* in view of Stelting et al., (U.S. Patent Pub No. 2004/0030740)(hereinafter “*Stelting*”).

This rejection is respectfully traversed. Regarding claim 6, the Examiner states:

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Robinson*, in view of Stelting, US 20040030740 (hereinafter Stelting). For claim 6, *Robinson* fails to explicitly disclose wherein the request includes a Java naming and directory interface request. However, Stelting discloses a method that discovers web services by querying a JNDI registry [0028]. *Robinson* and Stelting are analogous art because both are from the field of web services querying.

Office Action of June 10, 2008, page 6.

The Examiner admits, and Applicants agree, that *Robinson* fails to teach or suggest each and every feature of claim 6. The Examiner asserts that *Stelting* makes up for the deficiencies of *Robinson*. However, no *prima facie* obviousness rejection can be stated against claim 6 because the Examiner fails to provide a sufficient reason to achieve the legal conclusion of obviousness in view of *Robinson* and *Stelting*. The Examiner merely offers a possible advantage for the modification without providing any reason for the modification. *Stelting* is directed to computer based method for generating a web service. The Examiner asserts that the claims would have been obvious because one of ordinary skill in the art would have applied the teachings of *Stelting* for the benefit of *Robinson*, because “the modification extends the querying method of *Robinson* to include JNDI functionality.” However, this type of reasoning does not comport with the requirements of *KSR Int'l*. because a rational underpinning for the *legal conclusion* of obviousness is not the same as an advantage. While the advantage may be a fact

included in a chain of logic to establish a reason to achieve the legal conclusion of obviousness, the mere existence of the achieving the advantage is not enough. For example, one of ordinary skill would have to recognize the purported advantage and have a reason to implement the purported advantage in order to make the connection between the references. Additional logic would be required to state a compelling case for the legal conclusion of obviousness of the claims at issue. Therefore, under the standards of *KSR Int'l*, the Examiner failed to provide a rational underpinning to achieve the *legal conclusion of obviousness*. Hence, the Examiner failed to state a *prima facie* obviousness rejection.

II.C. *Robinson* in view of *Nykanen* – Claims 11-12

The Examiner has rejected claims 11-12 under 35 U.S.C. § 103 as being obvious over *Robinson* in view of *Nykanen* (US Patent No. 7155425). Applicants have canceled claims 11-12. Therefore the rejection of claims 11-12 is moot.

II.D. *Robinson* in view of *Moore* – Claims 16-17

The Examiner has rejected claims 16-17 under 35 U.S.C. § 103 as being obvious over *Robinson* in view of *Moore* (US Pub 2004/0122926) (hereinafter "*Moore*"). This rejection is respectfully traversed.

The Examiner asserts that *Moore* makes up for the deficiencies of *Robinson* in teaching the features of claims 16 and 17. The Examiner cites to the following:

[0034] As generally represented in FIG. 3, one aspect of the present invention is directed towards selection of a resource (from among a plurality of available resources that otherwise match a client's needs) based on the resource's reputation. To this end, a selection mechanism 302 selects a resource from a list 304 (or other suitably arranged data) and narrows the list to a selected resource 306 based on reputation data 308. The list may be maintained by a listing mechanism 310 that is internal or external to a computer requesting selection, and the reputation data provided by an internal or external auditor 312. Note that some or all of the components of FIG. 3, including the selection mechanism 302, may execute in the computer system 202 of FIG. 2, may execute external to it, or be distributed among internal and external components, and the selected resource 306 may be one of the resources shown in FIG. 2, e.g., the disk driver/disk 210, 212, the external hardware or software resource 206, the application 200, or some other resource. For example, as described below, part of a set of web services may be narrowed into a subset of web services by a selection mechanism component in a search engine, and that subset narrowed to one web service by a selection mechanism in a client.

[0054] Ultimately, if at least one web service server matches the contract and reputation requirements, then the web service search engine 406 returns a ranked list 426 of providers (e.g., links thereto or the like) which implement the specific web service to the client 402 in response to the query 404. Note that the search engine 406 may return only the top-ranked provider, however the client may prefer to select one from a list of several top-ranked ones. For example, the client

may have other criteria not necessarily in the reputation schema, such as based on the client's own experiences or preferences, e.g., never use a particular server's web service regardless of its rank, favor one over another regardless of rank, and so forth.

Moore, paragraphs 0034 and 0054.

The above cited section of *Moore* teaches selecting a web service based on a resource's reputation. *Moore* also teaches that a listing of the top-ranked providers are returned when a web service matches the contract and reputation requirements. However, *Moore* does not teach or suggest "locating an endpoint based on a second element in the registry file" as claimed in claim 16. Claim 16 claims "locating an endpoint location of the Web service based on the second element in the registry file." Thus, *Moore* fails to make up for the deficiencies of *Robinson*. Therefore, the combination of *Robinson* and *Moore*, when considered as a whole, fails to teach or suggest each and every feature of claim 16. Therefore a *prima facie* obviousness rejection cannot be stated against claim 16.

Claim 17 depends from claim 16. Under the standards of *In re Royka*, the Examiner fails to state a *prima facie* obviousness rejection of claim 17 at least by virtue of its dependency on claim 16. Therefore the rejection of claims 16 and 17 under 35 U.S.C. §103 has been overcome.

Moreover, no *prima facie* obviousness rejection can be stated against claims 16 and 17 because the Examiner fails to provide a sufficient reason to achieve the legal conclusion of obviousness in view of *Robinson* and *Moore* because the Examiner merely offers a possible advantage for the modification without providing any reason for the modification. The Examiner asserts that the claims would have been obvious because one of ordinary skill in the art would have applied the teachings of *Moore* for the benefit of *Robinson* because "the modification extends the querying method of *Robinson* to include returning a *best* result when multiple matches for a query exist." However, this type of reasoning does not comport with the requirements of *KSR Int'l*. because a rational underpinning for the *legal conclusion* of obviousness is not the same as an advantage. While the advantage may be a fact included in a chain of logic to establish a reason to achieve the legal conclusion of obviousness, the mere existence of the achieving the goal is not enough. Therefore, under the standards of *KSR Int'l*, the Examiner failed to provide a rational underpinning to achieve the *legal conclusion* of obviousness. Hence, the Examiner failed to state a *prima facie* obviousness rejection.

III. Conclusion

It is respectfully urged that the subject application is patentable over *Robinson* and is now in condition for allowance.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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